

Via Electronic Filing

August 21, 2009

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington DC 20554

Request for an Immediate Ruling

**Re: Wireless Strategies Inc. Request for a Declaratory Ruling, WTB
Docket No. 07-121, In the Matter of Coordination of Microwave Links
under Part 101 of the Commission's Rules.**

Dear Ms. Dortch:

It has been more than two years since the Commission issued a Public Notice inviting comments on a Request for Declaratory Ruling ("Request") filed by Wireless Strategies, Inc. ("WSI") regarding coordination of microwave links under Part 101 of the Commission's rules. Since WSI filed the Request, over fifty comments and ex parte notices have been submitted and numerous meetings between Commission staff and interested parties have been held. As a result of that exhaustive process, and the feedback it provided, WSI has clarified its Request so as to resolve any legitimate concerns or misunderstandings that may have been expressed. WSI believes that any further delay in acting on the Request cannot be justified, and in fact will prevent the deployment of microwave systems that can dramatically improve the effective use of spectrum, conserving a precious National resource, and dramatically reduce the cost of wireless broadband services all without causing any harmful interference. WSI asks the Commission to act promptly on the Request.

I. Innovation Can Reduce Wastage of Spectrum

Around every licensed microwave path are locations where an attempt to coordinate another station would fail, as the proposed station would either cause or receive harmful interference to and/or from the licensed path. Although these locations could be used by the existing licensee, they traditionally have not and therefore the spectrum has been used ineffectively; in short, it has been wasted. However, if the licensee upgrades the radios from equipment with single access to multiple access capability, and the Commission rules that Distributed Radiating/Receiving Elements¹ (DREs) can be deployed around licensed microwave stations, the "wasted" spectrum can be put to productive use, making it possible for licensees to increase the effective use of spectrum by at least one hundred percent (100%).

¹ See the definition in Attachment 1.

II. The Specific Request and the Rules Implicated in the Request

Specifically, the Request is for the issuance of a declaratory ruling to confirm that a “Fixed Service licensee is permitted to simultaneously coordinate multiple links whose transmitter elements collectively comply with the Commission’s antenna standards (Rule 101.115) and frequency coordination procedures (Rule 101.103)” and “that a licensee may use antennas having distributed elements to operate links, in addition to the main link..., subject to conditions that (1) all radiating elements together conform to the applicable antenna radiation pattern in Section 101.115, and (2) all links are successfully coordinated [Rule 101.103].”

Rule 101.115 provides a specification of acceptable antennas. By not specifying how the specification is met the Commission promotes innovation. In this regard, because Rule 101.115 is an electrical specification (gain in dBi and radiation suppression in dB to angle in degrees from the center line) and not a physical specification it would support any antenna that meets the electrical specification – large, small or with physically distributed radiation elements. To quote a Commission comment on this Rule:

“The rule on its face does not mandate a specific size of antenna. Rather, it specifies certain technical parameters – maximum beamwidth, minimum antenna gain, and minimum radiation suppression – that, depending on the state of technology at any point in time, directly affect the size of a compliant antenna....”²

Nowhere in Rule 101.115 is the Radiation Pattern Envelope (RPE) of a radiating element specified (e.g., a dipole at the focal point of a dish antenna). In short, Rule 101.115 does not say what an antenna system must look like. It is Rule 101.103 which contains physical and electrical parameters for calculating interference into victim receivers at different angles and distances. If an antenna design meets the requirements of these rules, and is frequency coordinated and licensed, there is nothing in Part 101 of the Rules or in logic that should prohibit the use of the antenna design.

III. Deployment of DREs

The evidence contained in the record of this proceeding clearly demonstrates that the deployment of Distributed Radiating Elements (“DREs”) will not cause harmful interference. Under WSI’s proposal, DREs would, as with radiating/receiving elements, have secondary status,³ meaning they must not cause and must accept interference.

² Report and Order in WT Docket No. 07-54, at page 4 (adopted: September 7, 2007).

³ WSI’s ex parte filing March 19, 2009, Footnote 2.

Further, the record shows that under Rule 101.103 spectrum managers would be provided with all the necessary technical details⁴ of the proposed deployment of the DRE(s) to analyze proposed DRE systems for interference impact.

As is typical with any attempt to propose doing things in a new way, WSI's Request has been at times misinterpreted and has had to be clarified. Those who have dispassionately considered the clarifications have changed from opponents to proponents of the Request. Sprint Nextel Corporation ("Sprint"), one of the largest users of microwave radios, reported to the Commission that "WSI has provided a number of clarifications and elaborations that ensure that existing microwave operations will be protected against harmful interference and that additional point-to-point links can continue to be implemented in the future."⁵ Two other large and sophisticated users of microwave radio systems, San Diego Gas and Electric Company and Southern California Gas Company (collectively the "Utilities"), reported to the Commission that they "agree that WSI's clarifications provide adequate assurance that its distributed radiating elements ("DREs") will be individually analyzed and coordinated in a manner that will provide the necessary notice and protection to operators of point-to-point systems. Moreover, to the extent that DREs operate on a secondary basis to those facilities, their presence will not limit future licensing of point-to-point links."⁶

IV. A Rule Making Proceeding Is Not Necessary, But Would Not Be Opposed

Although WSI believes that no change to Part 101 of the rules is required for the Nation to avail itself of the benefits of these existing, innovative technologies, it may be necessary for new definitions⁷ to be added to the Rules and prudent (if not necessary) to make explicit what is implicit in the Rules. Therefore WSI would support a conduct of a Rule Making to amend the rules to include such clarifications. That said, over two and a half years have elapsed since WSI filed its Request and it would definitely not be in the public interest to continue to delay a ruling on the deployment of DREs because the benefits of an immediate ruling to allow the deployment of DREs around licensed stations far outweighs the consequences for continuing to delay a decision.

⁴ WSI's ex parte filing March 19, 2009, Step 6.

⁵ Sprint Nextel ex parte filing March 12th 2009.

⁶ Utilities ex parte June 8th 2009.

⁷ See Attachment 1

Benefits from an Immediate
Ruling Permitting Deployment
Around Licensed Microwave Stations

Promotes the effective
use of spectrum and
conserves a finite
national resource

Promotes innovation

Allows microwave operators
to take advantage of the
latest technologies to lower
the cost of backhaul and access

Makes it economical to
provision broadband services to
unserved and underserved
communities

Will promote the efficient use of
Stimulus Funding for wireless
broadband projects

Will promote the lowering of healthcare
costs through the use of Telemedicine
due to lower cost broadband

Consequences from Delaying an Immediate
Ruling Permitting Deployment
Around Licensed Microwave Stations

Perpetuates the ineffective
use of spectrum and unnecessarily
depletes a finite national resource

Stifles innovation

Prevents microwave operators
from taking advantage of the latest
technologies to lower the cost of
backhaul and access

Continues to make it uneconomical to
provision broadband services to
unserved and underserved communities

Will waste Broadband Stimulus Funding
for wireless broadband projects

Will restrict the lowering of healthcare
costs through the use of Telemedicine
due to the high cost of broadband

V. Conclusion and Summary

Therefore, as the record shows that the deployment of DREs will cause no harmful interference and all the benefits above will become available to the public, especially to unserved and underserved communities, and the Commission will immediately encourage the conservation of one of the nation's precious resources – spectrum - and stimulate industry to invest more in research and development of the effective use of spectrum, and bring to market new innovative lower-cost products and services,

WSI requests an Immediate Ruling that DREs can be deployed around licensed microwave stations on the following conditions:

1. The DREs are secondary to the licensed path (i.e., they must not cause and must accept harmful interference).
2. The addition of DREs around a licensed station is considered a major change to the license.
3. As required by Rule 101.103 and consistent with existing procedure, before deployment of one or more DREs the licensee must coordinate the proposed DREs by studying the prospect for harmful interference, issuing a prior coordination notice (PCN) to frequency coordinators and allowing the coordinators thirty days to evaluate the potential for harmful interference.
4. Following existing coordination practice, a new applicant attempting to frequency coordinate a new path who predicts that interference from a DRE would be greater than the interference from the DRE's licensed or prior applicant's proposed licensed station(s), can require the licensee or prior applicant to reduce the predicted interference to levels no higher than would be predicted from the DREs associated licensed station(s).

Wireless Strategies therefore asks that its request be promptly granted.

Pursuant to Section 1.1206(b)(2) of the Commission's Rules, this *ex parte* communication is being filed electronically.

Respectfully submitted

Michael Mulcay, Chairman
Wireless Strategies Inc.

cc: Julius Genachowski, Chairman
Michael J. Copps, Commissioner
Robert M. McDowell, Commissioner
Mignon Clyburn, Commissioner
Meredith Attwell Baker, Commissioner
Ruth Milkman, Chief Wireless Telecommunications Bureau
Julius Knapp, Chief Office of Engineering Technology
Priya Aiyar, Legal Advisor to Chairman Genachowski
Jennifer Schneider, Legal Advisor to Commissioner Copps
Angela E. Giancarlo, Chief of Staff to Commissioner McDowell
Carol Simpson, Acting Legal Advisor to Commissioner Clyburn
Erin A. McGrath, Acting Legal Advisor to Commissioner Baker

Attachment 1

Proposed/Suggested New Definitions

Rule 101.3 Definitions:

Antenna with Distributed Radiating/Receiving Elements (DREs). An antenna with one or more radiating/receiving elements distributed around a station's point of coordination.

Distributed Radiating/Receiving Element (DRE). An antenna's radiating/receiving element that is distributed around a station's point of coordination which may not cause interference to operations authorized on a primary basis and which are not protected from interference from these primary operations.

Smart Antenna. An antenna system that combines an antenna array with a digital-processing capability to transmit and receive in an adaptive spatially sensitive manner.